Index of Claims

| Applicat | on/Contr | ol No. |
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Examiner

10/701,321

Anh Q. Tran

Applicant(s)/Patent under Reexamination

KIM, JOUNG-YEAL

Art Unit

2819

| √ | Rejected |
|---|----------|
| = | Allowed  |

| _  | - | (Through numeral)<br>Cancelled |  |  |  |  |  |  |  |
|----|---|--------------------------------|--|--|--|--|--|--|--|
| Γ. |   | Restricted                     |  |  |  |  |  |  |  |

| Z | Non-Elected  |
|---|--------------|
| - | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla      | aim      |          |          |          | Dat           | e        |                   |          |        | Cla      | aim      |          |            |          | D        | ate      |         |          |          |          | С          | laim       |              |                 |          | D               | ate      |          | _             |           |          |
|----------|----------|----------|----------|----------|---------------|----------|-------------------|----------|--------|----------|----------|----------|------------|----------|----------|----------|---------|----------|----------|----------|------------|------------|--------------|-----------------|----------|-----------------|----------|----------|---------------|-----------|----------|
|          | <u> </u> | 33/00    | -1       |          |               |          |                   |          |        |          | -61      |          |            |          |          |          |         |          |          |          |            | <u></u>    |              | -               |          | - 1             | - 1      |          | 1             |           |          |
| Final    | Original | 3        | Ll       | 1        |               | 1 1      |                   |          |        | Final    | Original |          |            |          |          |          |         |          |          |          | Final      | Original   |              | - 1             |          |                 | - 1      | - 1      |               |           |          |
| Œ        | ő        |          | -        |          |               | 1        |                   |          |        | i E      | 5        |          |            |          |          |          |         |          |          |          | 证          | 8          |              |                 |          |                 |          |          | 1             |           |          |
|          |          | 0        | -        |          | ╄-            | ┦╌┤      | _                 |          |        |          |          | Ļ        | Ш          |          | -        | 4        | +       | 4        | Ш        |          |            |            | _            | 4               |          |                 | -        |          | +             | $\dashv$  | 4        |
|          | 1        | 1        | $\vdash$ | _        | +             | ┦╌┤      |                   | _        |        |          | 51       | =        | Щ          |          | $\dashv$ | 4        |         | -        | Ш        |          |            | 101        | $\dashv$     | $\dashv$        | -        | -               |          | $\dashv$ | +             | -         |          |
|          | 2        | 0        | -        | - -      |               | ┦╌┤      |                   |          |        |          | 52       | H        | Н          |          | $\dashv$ | _        | +       |          | Н        |          |            | 102        |              | $\dashv$        | $\dashv$ | $\dashv$        | -1       |          | +             | +         | _        |
| <u> </u> | 3        | Н        | $\vdash$ | +        | ╁             | ₩        | $\rightarrow$     |          |        | <u> </u> | 53       | H        | -          | $\dashv$ | $\dashv$ | +        | +       | +        | Н        |          |            | 103        | $\dashv$     | +               | -        | $\dashv$        | $\dashv$ | -        | +             | +         | $\dashv$ |
|          | 4        | Н        | $\vdash$ | +        | +             | ╂╌┨      | -                 | +        |        | ├—       | 54<br>55 | 1        | H          |          |          | +        |         |          |          |          |            | 104<br>105 | $\dashv$     | $\dashv$        | $\dashv$ | -+              | -+       | -        | +             | +         | ႕        |
|          | 5<br>6   | Н        | $\vdash$ | +        | +             | $\vdash$ | -                 |          |        |          | 56       | =        |            | $\dashv$ | $\dashv$ | +        | ┽       |          | H        |          |            | 106        | $\dashv$     | $\dashv$        | $\dashv$ | -+              | -        | $\dashv$ |               | +         | $\dashv$ |
|          | 7        | $\vdash$ |          |          | ╁             | ╂═╂      | -                 |          | 1      |          | 57       | -        | ⊢          |          |          | +        | +       | +-       | Н        |          |            | 107        |              | $\dashv$        | $\dashv$ | $\dashv$        | $\dashv$ | -+       |               | 十         | $\dashv$ |
|          | 8        | Н        | $\vdash$ | ╌        | ╁╌            | ╁╌┤      | $\dashv$          | +        | 1      | _        | 58       | ┢        | $\vdash$   | $\dashv$ | $\dashv$ | -        | ╫       | +        | Н        |          |            | 108        | $\vdash$     | $\dashv$        | $\dashv$ | $\dashv$        | $\dashv$ | $\dashv$ | $\dashv$      | +         | ᅱ        |
|          | 9        | 8        |          |          | ╁             | $\vdash$ |                   |          | 1      | -        | 59       | ┢        | -          |          | $\dashv$ | $\dashv$ | ┰       | +        | Н        |          |            | 109        | -            | -               | $\dashv$ |                 | +        | $\dashv$ | $\dashv$      | +         | ᅱ        |
| -        | 10       | 1        | ┝┼       | +        | +             | +        | -                 | +        | 1      |          | 60       | $\vdash$ | Н          | $\vdash$ | $\dashv$ | +        | +       | +-       | $\vdash$ |          |            | 110        | -            | $\dashv$        | +        | $\dashv$        | $\dashv$ | $\dashv$ | $\dashv$      | +         | $\dashv$ |
| <b></b>  | 11       | ۱۲       | $\vdash$ | +        | +             | +        | -                 |          | 1      |          | 61       | ┢        |            |          | $\dashv$ | $\dashv$ | +       | +        | Н        |          |            | 111        | $\dashv$     | -+              | -        | $\dashv$        | 7        | $\dashv$ | $\dashv$      | +         | $\dashv$ |
| -        | 12       | H        |          | +        | +             | +        | $\vdash$          | $\dashv$ | 1      |          | 62       | $\vdash$ | Н          | Н        | $\dashv$ | 十        | +       | $\vdash$ | $\vdash$ |          | _          | 112        |              | _               | -        | $\dashv$        | _        | $\dashv$ | $\dashv$      | $\dashv$  | $\dashv$ |
| -        | 13       | ゖ        | 1        | +        | +             | +        | $\vdash$          |          | 1      | $\vdash$ | 63       | 1        | $\vdash$   | Н        | $\dashv$ | _        | +       | $\top$   | Н        |          |            | 113        | $\vdash$     |                 | 7        | $\dashv$        | $\dashv$ | 一        | _             | 十         | ᅥ        |
|          | 14       | 0        | 1        | +        | $\top$        | +        | $\vdash$          | $\neg$   | 1      |          | 64       |          | $\Box$     |          | H        | $\dashv$ | $\top$  | $\top$   | $\vdash$ |          |            | 114        | $\Box$       |                 | 一        | $\neg$          | $\dashv$ | $\neg$   |               | 寸         | T        |
|          | 15       | ĭ        | $\vdash$ | 十        | $\top$        | $\vdash$ | $\vdash$          | $\dashv$ | 1      |          | 65       |          | T          |          | $\Box$   | $\dashv$ | +       | $\top$   | П        |          |            | 115        | П            |                 | $\neg$   | $\neg$          | $\neg$   | 寸        | $\dashv$      | 寸         | П        |
|          | 16       | H        | H        | $\dashv$ | 1             | 1        |                   | $\neg$   | 1      |          | 66       | T        |            |          |          | 寸        | $\top$  |          | П        |          |            | 116        | П            |                 |          |                 | $\neg$   |          | $\neg$        | П         |          |
|          | 17       | Ħ        | $\vdash$ | ┪        | $\top$        | $\top$   | $\vdash \uparrow$ |          | 1      |          | 67       | <u> </u> |            | П        | $\Box$   | _        |         | $\top$   | $\Box$   |          |            | 117        | П            | $\Box$          | 寸        |                 | T        | T        | 寸             | 寸         |          |
|          | 18       | Ħ        | $\Box$   | $\neg$   | $\top$        | $\top$   |                   | 1        | 1      |          | 68       | T        |            |          | П        |          | $\top$  | $\top$   |          |          |            | 118        | П            |                 |          |                 |          | İ        | 寸             | 寸         |          |
|          | 19       | Ħ        |          |          | _             |          | $\Box$            |          | 1      |          | 69       | T        | $\vdash$   |          | П        | T        | 1       |          |          |          |            | 119        | П            |                 |          | $\neg$          |          |          | $\neg$        | $\neg$    |          |
|          | 20       | 0        |          |          |               | П        | П                 | $\neg$   | 1      |          | 70       | 1        | ┢          |          | П        |          | 7       |          | П        |          |            | 120        | П            |                 |          |                 | $\neg$   | $\neg$   | $\neg$        | $\exists$ |          |
|          | 21       | 1        | 1        |          | $\top$        |          |                   |          | 1      |          | 71       |          | _          |          | П        | 一        |         |          |          |          |            | 121        | П            |                 | $\neg$   |                 |          | T        |               | $\neg$    |          |
|          | 22       | Ī        | $\Box$   | _        |               | $\Box$   |                   |          | 1      |          | 72       |          | Τ          |          |          | $\neg$   |         |          |          |          |            | 122        | П            |                 | $\Box$   |                 | 一        | $\neg$   | Т             | $\neg$    |          |
|          | 23       | П        |          |          |               |          |                   |          | 1      |          | 73       |          | T          |          | П        |          | T       |          |          |          |            | 123        |              |                 | $\Box$   |                 |          |          |               |           |          |
|          | 24       | П        | П        |          | $\neg \vdash$ | $\Box$   |                   |          | 1      |          | 74       |          | Г          |          | П        | 1        | T       |          |          |          |            | 124        |              |                 |          |                 |          |          | $\Box$        | $\Box$    |          |
|          | 25       | П.       | H        |          | 1             | 11       |                   |          | 1      |          | 75       |          |            |          | П        |          |         |          |          |          |            | 125        |              |                 |          |                 |          |          | $\Box$        | $\square$ |          |
|          | 26       | 7        |          |          |               |          |                   |          |        |          | 76       |          |            |          |          |          |         |          |          |          |            | 126        |              |                 |          |                 |          |          | $\Box$        | $\Box$    |          |
|          | 27       | O        | П        |          |               |          |                   |          |        |          | 77       |          |            |          |          |          | T       |          |          |          |            | 127        |              |                 |          |                 |          |          | $\Box$        | $\Box$    |          |
|          | _28_     |          |          |          |               |          |                   |          | ]      |          | _78_     |          |            |          |          |          |         |          |          |          |            | 128        |              |                 |          | $\Box$          | _        |          | _             | _         |          |
|          | 29       | 0        |          |          |               |          |                   |          |        |          | 79       |          |            |          |          |          |         |          | L        |          |            | 129        |              |                 | $\Box$   | Ш               |          |          | ightharpoonup | _         |          |
|          | 30       | V        |          |          |               |          |                   |          |        | <u> </u> | 80       | _        |            |          | Ш        |          |         | $\perp$  |          |          |            | 130        |              |                 | _        |                 |          |          | _             | _         |          |
|          | 31       | V        |          | $\Box$   | L             |          | $\Box$            |          |        |          | 81       |          |            |          | Ш        |          | $\perp$ |          | _        |          | <u></u>    | 131        | Ш            | Ш               |          |                 |          |          | $\dashv$      | _         |          |
|          | 32       | 0        |          |          |               |          | Щ                 |          | 1      |          | 82       | <u> </u> | <u> </u>   | <u> </u> | Ш        | _        |         |          | 乚        |          | <u> </u>   | 132        | Ш            | Щ               | _        | Щ               | _        |          | _             | _         |          |
| <u></u>  | 33       | W        |          | $\perp$  | _             | $\perp$  | Ш                 |          | 1      | <u> </u> | 83       | _        | L          | <u> </u> | Щ        | _        |         | 4_       | _        |          | <u> </u>   | 133        | $\sqcup$     | $\sqcup$        | _        | $\square$       | $\perp$  |          | $\dashv$      | _         |          |
| <u></u>  | 34       | 7        | $\sqcup$ | 4        | $\bot$        | $\bot$   | Ш                 | _ _      | J      | <u> </u> | 84       | 1        | <u> </u>   |          | Ш        | $\dashv$ | _       |          | ــــ     |          | <u> </u>   | 134        | Ш            | Щ               |          | -               |          | Щ        | $\dashv$      | _         | _        |
|          | 35       | 0        | $\sqcup$ |          | 4-            | 1_       | Ш                 |          | 4      | <u> </u> | 85       | 4_       | <b> </b> _ | 1        | Ш        | _        | $\perp$ | $\perp$  | $\vdash$ |          | <u> </u>   | 135        | Щ            | Щ               | _        |                 |          |          |               | 4         |          |
| <u></u>  | 36       | 11       |          | _        | - -           | _        | $\sqcup$          |          | 4      | <u> </u> | 86       | 1        | ↓_         | <u> </u> | Ш        | _        | 4       |          | 1_       | l        | <u> </u>   | 136        | -            |                 | _        | H               |          | $\Box$   | _             |           | _        |
|          | 37       | D,       |          | _        | 4             | 4        | $\sqcup$          |          | 4      | <u> </u> | 87       | ـ        | <b>!</b>   | L        | Ш        | _        | $\perp$ |          | $\perp$  |          | $\vdash$   | 137        | <u> </u>     | $\vdash \vdash$ |          | $\vdash \vdash$ | =        | $\vdash$ | _             | -         |          |
| <u> </u> | 38       | V        | 4        | _        | +             | -        | $\sqcup$          | _ _      | 4      | <u> </u> | 88       |          | $\vdash$   | <u> </u> |          | -        | _       |          | 1        |          | _          | 138        |              | $\vdash \vdash$ |          | Н               |          |          | $\dashv$      | $\dashv$  |          |
| ļ        | 39       | M        | $\vdash$ | +        | +             | $\perp$  | $\vdash$          | —        | 4      |          | 89       | ₩        |            | <u> </u> | Н        | $\dashv$ | -       | +        | +        |          | -          | 139        | $\vdash$     | $\vdash \vdash$ |          | $\vdash$        | $\vdash$ | Н        | $\dashv$      |           |          |
| <u> </u> |          | 0        |          |          |               | -        | $\vdash \vdash$   |          | 4      | $\vdash$ | 90       | ╄        | ₩          | $\vdash$ | Н        | $\dashv$ | -       | +        | $\vdash$ |          |            | 140        | $\vdash$     | $\vdash \vdash$ | _        | $\vdash$        | $\vdash$ | Н        | $\dashv$      | -         |          |
| <u> </u> | 41       | 1        |          | -        | +-            | -        | $\vdash$          | _ _      | 4      | <u> </u> | 91       | +        |            |          | $\vdash$ | $\dashv$ | +       | +        | ╀        | l        |            | 141        | $\vdash$     | $\vdash$        |          | Н               | $\dashv$ | Н        | $\dashv$      |           |          |
|          | 42       | 0        | $\vdash$ | _        | +             | +        | $\vdash$          |          | 4      | <u> </u> | 92       | ╄        | ├          | ├-       | $\vdash$ | $\dashv$ | +       | +        | ┼        |          | _          | 142        | -            |                 |          | Н               |          | $\vdash$ |               |           |          |
| <u></u>  | 43       | ₩        | +        | $\dashv$ | +             | +-       | $\vdash$          |          | -      |          | 93       | -        |            | $\vdash$ | Н        | $\dashv$ | -       |          | +-       | <b> </b> | <u> — </u> | 143        | $\vdash$     | ⊢⊦              | _        | $\vdash$        | $\vdash$ | Н        |               |           | _        |
|          | 44       | ╁        | ╁╼╂      | +        | +             | +-'      |                   |          | -      |          | 94       | -        | +          | $\vdash$ | Н        | $\dashv$ | -       |          | $\vdash$ | ł        | <u> — </u> | 144        | $\vdash$     | $\vdash\vdash$  | -        | $\vdash$        | $\vdash$ | Н        | $\dashv$      | -+        |          |
| -        | 45       | ╁        | ╁┼       | +        | +             | ┿        | $\vdash$          |          | -      |          | 95       | +-       | ╁          | $\vdash$ | Н        | $\dashv$ | +       |          | +-       |          |            | 145        | $\vdash$     | $\vdash \vdash$ |          |                 |          | Н        | $\dashv$      | $\dashv$  | _        |
| $\vdash$ | 46       | ++       | $\vdash$ |          | +-            |          | $\vdash$          |          | -      |          | 96       | +-       | ╀          | $\vdash$ | Н        | $\dashv$ | -       | +        | $\vdash$ | ł        |            | 146        | <del> </del> | ├-┤             |          | $\vdash$        | $\vdash$ | Н        |               |           | _        |
|          | 47       | ₩        | ++       | -        | +             | +        | $\vdash$          | $\dashv$ | -      |          | 97       | +-       | $\vdash$   | $\vdash$ | Н        | $\dashv$ |         |          | +        | 1        |            | 147        | -            | -               | _        | Н               | $\vdash$ | Н        | $\dashv$      |           |          |
|          | 48       | 낢        | 1-1      | $\dashv$ | +             | +        | $\vdash$          | $\dashv$ | -      | <b> </b> | 98       | ╀        | ╀          | ⊢        | Н        | $\dashv$ | -+-     |          | +        | 1        | <u> </u>   | 148        | -            | $\vdash$        |          | $\vdash\vdash$  | H        | $\vdash$ | $\dashv$      |           |          |
| _        | 49       | 0        | +        | +        | +             | +        | $\vdash$          | -        | -      | <b>—</b> | 99       | ⊢        | ⊢          | -        | $\vdash$ | $\dashv$ | +       | +        | ┼        | <b>{</b> |            | 149        | ├            | $\vdash \vdash$ |          | $\vdash$        | $\vdash$ | $\vdash$ | $\dashv$      |           |          |
|          | 50       | Ξ        | Ш        | L        |               |          | Ш                 | L_       | J::::: | :        | 100      |          |            | L        |          |          |         | _1_      |          | J:::::   | L          | 150        |              | ш               |          |                 |          |          | ш             |           |          |